

**TABLE 1 - INTERMOUNTAIN POWER GENERATION TURBINE
RETROFIT MAJOR INTERFACE LIST**

No.	Description	Alstom	GE	Effect or Comments
7	Axial Clearances <ul style="list-style-type: none"> Turbine end, wheel base to diaph inner ring "D" and "P" 	Vary	Vary	10% to 60% less than GE's. The Alstom axial clearances D and P (wheel base to diaphragm inner ring, TE) are smaller than the GE's. The "P" clearance is the smallest and most probable rubbing clearance in axial direction, for a rotor long (rotor expands faster than shell or shell contracts faster than rotor) condition.
	<ul style="list-style-type: none"> Bucket to partition, generator end, (L') 	Vary	Vary	7% to 34% greater than GE's
	<ul style="list-style-type: none"> Bucket shroud to diaph outer ring, generator end, (N) 	Vary	Vary	1% to 17% greater than GE's
8	High Pressure Heater Extraction Pressure @ VWO	1096 psia	1094 psia	The new pressure is close to the original value
9	1 st Stage Inner Surface Temp	HP Inlet	1 st Stage Inner Shell	Reposition the HP inlet inner surface thermocouple to the steam inlet. The new thermocouples should provide similar outputs in terms of temperature and response. Descriptions in the GE instruction manual and TGSi will be changed to "HP Inlet Inner Surface Temperature" from "1 st Stage Shell Metal Temperature"
10	1 st Stage Pressure	HP Leads Upstream of Bowl	1 st Stage Inner Shell	The 1 st stage pressure is used by the boiler controls as a measure of steam flow. With full arc admission the HP inlet pipe pressure is proportional to steam flow, therefore it is normal practice to use inlet pipe pressure in place of 1 st stage pressure as a measure of steam flow.
11	IP Rotor Cooling Steam	816F	829F	OK
12	HP Differential Expansion Alarms (DX1): <ul style="list-style-type: none"> Rotor Long Alarm Hi-Hi Rotor Long Alarm Cold Set (reference) Rotor Short Alarm Rotor short Alarm Hi-Hi 	+0.430" +0.400" 0.000" -0.150" -0.170"	0.200" 0.230" 0.630" 0.780" 0.800"	The new HP turbine is consistent with the existing GE differential expansion alarm and limit values.
13	Rotor Vibration Alarms	No Change	GE	High speed balance up to 4300 rpm indicated maximum peak to peak vibration of less than 0.75 mils.
14	Bearing Temperature Alarms	No Change	GE	OK
15	HP Water Detection, Tops and Bottoms	No Change	GE	OK